



7555-01-P

NATIONAL SCIENCE FOUNDATION

Request for Information on National Strategic Overview for Quantum Information Science

AGENCY: National Science Foundation.

ACTION: Notice of request for information.

SUMMARY: The National Science and Technology Council (NSTC) Subcommittee on Quantum Information Science (SCQIS) release of the “National Strategic Overview for Quantum Information Science” (hereafter “Strategic Overview”) calls upon agencies to develop plans to address six key policy areas to enable continued American leadership in quantum information science. The National Science Foundation (NSF), working with the NSTC, is requesting information from the research and development community around quantum information science (QIS) to inform the subcommittee as the Government develops potential means of addressing specific policy recommendations.

DATES: Interested persons are invited to submit comments on or before 11:59 pm (ET) on **[INSERT DATE 45 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Comments submitted in response to this notice may be sent by either of the following methods:

- Email: nsfscqis@nsf.gov. Email submissions should be machine-readable and not be copyright-protected. Submissions should include “RFI Response: National

Strategic Overview for Quantum Information Science” in the subject line of the message.

- Direct input to the website: <http://www.nsfscqis.org>

Instructions: Response to this RFI is voluntary. Each individual or institution is requested to submit only one response. Submissions must not exceed the equivalent of one page for each question, or eight pages total, in 12 point or larger font, with a page number provided on each page. Responses should include the name of the person(s) or organization(s) filing the comment.

Responses to this RFI may be posted online as discussions proceed. Therefore, we request that no business proprietary information, copyrighted information, or personally identifiable information be submitted in response to this RFI.

In accordance with FAR 15.202(3), responses to this notice are not offers and cannot be accepted by the Government to form a binding contract. Responders are solely responsible for all expenses associated with responding to this RFI.

FOR FURTHER INFORMATION CONTACT: C. Denise Caldwell at (703)-292-7371 or nsfscqis@nsf.gov. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION: The National Science and Technology Council’s Subcommittee on Quantum Information Science “National Strategic Overview for Quantum Information Science” (hereafter “Strategic Overview”) was released in September 2018. This document calls upon agencies to develop plans to address six

key policy areas to enable continued American leadership in quantum information science. On behalf of Federal agencies the NSTC Subcommittee on Quantum Information Science seeks public input to inform the subcommittee as the Government develops potential means of addressing the specific policy recommendations included in the “Strategic Overview”. Responders are asked to answer one or more of the following questions:

1. What specific actions could the US Government take that would contribute best to implementing the policy recommendations in the Strategic Overview? What challenges, not listed in section 3, should also be taken into account in implementation of the Strategic Overview recommendations?
2. What are the scientific and technological challenges that, with substantial resources and focus over the next ten years, will transform the QIS research and development landscape?
3. Regarding industrial engagement, what roles can the U.S. Government play in enabling the innovation ecosystem around QIS-related technologies? Are there critical barriers for industrial innovation in this space? How can these barriers be addressed? What role can the U.S. Government play in mitigating early or premature investment risks?
4. How can the U.S. Government engage with academia and other workforce development programs and stakeholders to appropriately train and maintain researchers in QIS while expanding the size and scope of the ‘quantum-smart’ workforce?

5. What existing infrastructure should be leveraged, and what new infrastructure could be considered, to foster future breakthroughs in QIS research and development?
6. What other activities/partnerships could the U.S. Government use to engage with stakeholders to ensure America's prosperity and economic growth through QIS research and development?
7. How can the United States continue to attract and retain the best domestic and international talent and expertise in QIS?
8. How can the United States ensure that US researchers in QIS have access to cutting-edge international technologies, research facilities, and knowledge?

Reference: *National Strategic Overview for Quantum Information Science*,

<https://www.whitehouse.gov/wp-content/uploads/2018/09/National-Strategic-Overview-for-Quantum-Information-Science.pdf>

Submitted by the National Science Foundation in support of the NSTC Subcommittee on Quantum Information Science on December 6, 2018.

Suzanne H. Plimpton,

Reports Clearance Officer,

National Science Foundation.

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